WHAT IS CLAIMED IS:

1. An eddy current brake mechanism comprising:

a diamagnetic or non-magnetic member;

a fixed linear array of permanent magnets;

a moveable linear array of permanent magnets disposed in a parallel relationship with said fixed linear array of permanent magnets for enabling passage of the member therebetween; and

apparatus for adjusting eddy current induced in the member, and concomitant braking force, through lateral movement of said movable linear array of permanent magnets.

2. The brake mechanism according to claim 1 wherein the apparatus comprises an actuator disposed in an operational relationship with said movable linear array of permanent magnets.

3. The brake mechanism according to claim 1 wherein the apparatus comprises a spring attached to said movable linear array of permanent magnets for enabling the lateral movement to be a function of velocity of the member between the magnet arrays.

4. An eddy current brake mechanism comprising:

a diamagnetic or non-magnetic member;

a fixed array of permanent magnets;

a rotatable array of permanent magnets disposed in a spaced apart relationship with said fixed array of permanent magnets of enabling passage of the member therebetween; and apparatus for adjusting eddy current induced in the member, and concomitant braking force, through rotation of said rotatable array of permanent magnets.

5. The brake mechanism according to claim 4 wherein the apparatus comprises an actuator disposed in an operational relationship with said rotatable array of permanent magnets for rotation thereof.

6. The brake mechanism according to claim 4 wherein the apparatus comprises a spring attached to said rotatable array of permanent magnets for enabling the rotation as a function of velocity of the member between the magnet arrays.

7. An eddy current brake mechanism comprising:

a diamagnetic or non-magnetic member;

a first movable linear array of permanent magnets;

a second movable linear array of permanent magnets disposed in a spaced apart parallel relation ship with the first array for enabling passage of the member therebetween and within a plane established by the parallel arrays; and

an actuator connected to the arrays for adjusting eddy current induced in the member, and concomitant braking force, through movement of the arrays in a direction perpendicular to the plane.

8. An eddy current brake mechanism for a car having spaced apart wheels for engagement with a pair of parallel rails, the mechanism comprising:

a diamagnetic or non-magnetic member depending from said car between the wheels;

first and second linear arrays of permanent magnets disposed in a parallel spaced apart relationship for enabling passage of the member therebetween in order to induce eddy currents, and concomitant braking force, in the member upon passage of the member between the arrays;

springs disposed between said car and each wheel for lowering the member between the arrays as a function of car weight thereby adjusting the induced eddy current and braking force as a function of car weight.